Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In Re:	)	
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Delete, Delete, Delete	)	GN Docket No. 25-133
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COMMENTS OF LOGOS SPACE SERVICES, INC.

Logos Space Services, Inc. ("Logos") provides these comments in response to the Federal Communications Commission's ("Commission") Public Notice seeking input on ways to alleviate unnecessary regulatory burdens on Commission regulatees in a manner that would encourage American companies to invest in modern networks, resilient infrastructure, and advanced capabilities.[1] Logos commends the Commission for this bold and proactive approach to ensuring regulation does not hinder deployment, competition, and technological innovation.[2] Logos encourages the Commission to utilize this opportunity to undertake a holistic review of its non-geostationary orbit ("NGSO") satellite licensing regime to eliminate unnecessary delays and barriers to entry for state-of-the-art systems. In so doing, the Commission can eliminate a substantial impediment to the deployment of next-generation, American-made satellite connectivity solutions and maintain U.S. leadership in the development and provision of resilient, secure communication services.

Prior to 2003, all satellite networks—geostationary orbit ("GSO") and NGSO alike—were licensed using processing round procedures.[3] At that time, the Commission already recognized

[1] *In Re: Delete, Delete, Delete*, Public Notice, GN Docket No. 25-133, DA 25-219 (Mar. 12, 2025) ("Public Notice").

[2] *Id*. at 1.

[3] *See Amendment of the Commission's Space Station Licensing Rules and Policies*, First Report and Order and Further Notice of Proposed Rulemaking in IB Docket No. 02-34 and First Report

that "processing round licensing procedures involve multiple, often quite intricate and time-consuming steps."[4] The Commission based its reforms on the determination that "one size does not fit all – that different procedures are better suited to applications for different kinds of satellite systems."[5] While the Commission used that proceeding to wholly eliminate processing rounds for GSO systems, it adopted modified processing rounds for NGSO systems.[6] With the modified procedures, all of the intricate and time-consuming steps not only persisted over the last two decades, but also compounded due to the increasing complexity, breadth, and number of modern NGSO systems. Adding to the problem, the current structure of NGSO processing rounds—with application cut-off dates and protracted processing periods—also forces existing and would-be operators to engage in rampant speculation, resulting in a significant waste of limited Commission resources.

Processing rounds were intended to provide a "measure of certainty" to operators in the unique commercial position to undertake the significant financial and resource expenditures associated with deploying a satellite constellation.[7] In practice, processing rounds have become a near complete barrier to entry for prospective NGSO fixed-satellite service ("FSS") and mobile-satellite service ("MSS") systems. Applicants who did not or were not ready to apply in 2020 or

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and Order in IB Docket No. 02-54, IB Docket Nos. 02-34 & 02-54, FCC 03-102, ¶ 5 (2003) ("Space Station Licensing R&O").

[4] *See Amendment of the Commission's Space Station Licensing Rules and Policies*, Notice of Proposed Rulemaking and First Report and Order, IB Docket Nos. 00-248 & 02-34, FCC 02-45, ¶ 5 (2002) ("Space Station Licensing NPRM").

[5] Space Station Licensing R&O, ¶ 5.

[6] *Id*.

[7] *Update to Parts 2 and 25 Concerning Non-Geostationary, Fixed-Satellite Service Systems and Related Matters*, Report and Order and Further Notice of Proposed Rulemaking, 32 FCC Rcd 7809, ¶ 61 (2017) ("2017 NGSO FSS Order").

2021 when the last cut-off dates were established, now face the reality that their applications may be held indefinitely while the Commission simultaneously resolves five-year-old applications in the pre-existing processing rounds, establishes new sharing regimes that prioritize the interests of existing licensees,[8] and determines how to evaluate applications it has received after those cut-off dates.[9] All of these scenarios can discourage, prevent, or obstruct new entrants seeking entry in the U.S. market; potentially deterring generations of innovation that could directly benefit American consumers.

However, the underlying reasons for employing processing rounds to evaluate NGSO applications may no longer be relevant—modern NGSO FSS and MSS systems *can* effectively and efficiently share spectrum with systems that come both before and after them, as well as with other co-frequency and adjacent band services. In fact, NGSO FSS applicants themselves routinely convey this fact to the Commission as part of their applications, providing detailed analyses of how technology has evolved past the current licensing regime.[10]

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[8] *See*, *e.g.*, *Revising Spectrum Sharing Rules for Non-Geostationary Orbit, Fixed-Satellite Service Systems*, Second Report and Order and Order on Reconsideration, IB Docket No. 21-456, FCC 24-117 (2024) ("2024 NGSO FSS Order"); *Revising Spectrum Sharing Rules for Non-Geostationary Orbit, Fixed-Satellite Service Systems*, Report and Order and Further Notice of Proposed Rulemaking, IB Docket No. 21-456, 38 FCC Rcd 3699 (2023) ("2023 NGSO FSS Order"); *Revising Spectrum Sharing Rules for Non-Geostationary Orbit, Fixed-Satellite Service Systems*, *Revision of Section 25.261 of the Commission's Rules to Increase Certainty in Spectrum Sharing Obligations Among Non-Geostationary Orbit Fixed-Satellite Service Systems*, Order and Notice of Proposed Rulemaking, IB Docket No. 21-456, 36 FCC Rcd 17871 (2021).

[9] *See generally* 2024 NGSO FSS Order; s*ee also Space Exploration Holdings, LLC, Request for Orbital Deployment and Operating Authority for the SpaceX Gen2 NGSO Satellite System*, Order and Authorization, DA 24-222, ¶¶ 11-13 (2024) (granting SpaceX's request for waiver of the processing round rules and citing similar cases).

[10] *See*, *e.g.*, Logos Space Services, Inc., Application to Construct, Launch, and Operate a Non-Geostationary Orbit System in the Fixed-Satellite Service, ICFS File No. SAT-LOA-2024103000243 (filed Oct. 30, 2024), *as amended by* ICFS File No. SAT-AMD-20250328-00084) (filed Mar. 28, 2025) (pending) ("Logos Application"); Application of Kuiper Systems LLC for Authority to Launch and Operate a Non-Geostationary Satellite Orbit System in Ka-

For example, in its own application, Logos explained how the Logos Network employs advanced spectrum optimization techniques—including high elevation angles, narrow pencil-beams, satellite diversity, dynamic channelization and power modulation, and software-defined radios—to share with co-frequency systems and protect adjacent band services while providing enterprise customers in the United States and around the world increased operational flexibility and resilience in a contested environment.[11] These advanced spectrum sharing techniques are enhanced by Logos's state-of-the-art software-defined network ("SDN"), which administers the entire Logos ecosystem in accordance with Commission rules and relevant coordination agreements, allowing the Logos Network to autonomously adapt to changing operational constraints in real time and ensuring robust connectivity to Logos customers without risk of

band Frequencies, ICFS File No. SAT-LOA-20190704-00057, Narrative at 17 (filed July 4, 2019) ("Amazon requests waiver of the Commission's administrative rule for NGSO application processing, which is no longer necessary to ensure competitive entry. . . . [spectrum sharing concerns are] no longer the case given advancements in NGSO FSS technology and the use of directional earth station antennas, which enable co-frequency operations among NGSO licensees."); Application of Space Exploration Holdings, LLC For Amendment of Application for the SpaceX Gen2 NGSO Satellite System, ICFS File No. SAT-AMD-20241017-00228, Waiver Request at 21 (filed Oct. 17, 2024) ("Many of the high frequency bands targeted by SpaceX will enable the use of narrow, directional beams that facilitate spectrum sharing strategies and thus would not preclude entry by other satellite systems."); NSLComm Ltd., Petition for US Market Access for a Non-Geostationary Orbit Small Satellite System in the Fixed Satellite Service, ICFS No. SAT-PDR-20240816-00186, Narrative at 7 (filed Aug. 16, 2024) ("[T]he BeetleSat system can provide commercial service while protecting both the 2016 and 2020 Ka-band Processing Round participants as required by Commission rules and policy."); Intelsat License LLC, as debtor in possession, Petition for Declaratory Ruling Granting Access to the U.S. Market for a Non-U.S.-Licensed Non-Geostationary Orbit Satellite System, ICFS File No. SAT-PDR-20211104-00146, Narrative at 12 (filed Nov. 4 2021) ("Intelsat's operations would preclude neither 2020 processing round Ku-band applicants nor other future entrants from using the proposed Ku-band frequencies. Intelsat would coordinate frequency use in good faith; meet the default NGSO FSS sharing criteria and subsequent rule changes; and employ highly directional antennas, software-defined radios, beam-forming and beam-shaping techniques, satellite diversity, and other progressive interference-mitigation tools to permit frequency sharing in this band.").

[11] *See generally* Logos Application.

harmful interference to co-frequency systems.[12]

But like several other applicants, Logos submitted its application "outside" of a processing round.[13] This means, barring grant of waiver of the processing round rules, an application can potentially languish for years until the Commission makes a determination on *how* to process it. Rather than facilitating entry for future systems, the Commission's existing rules for authorizing NGSO FSS/MSS systems through processing rounds may actually prevent or significantly delay operators, like Logos, from delivering critical services to American enterprise when they most urgently need them.

And these services are increasingly critical to American consumers. The need for space-based connectivity has grown in priority and significance in the past decade both within the United States and globally, in large part due to systems licensed by the Commission. These systems continue to play ever more prominent roles in daily connectivity solutions for both consumers and enterprise, as well as government users and warfighters. Satellite connectivity has evolved from a last-option solution to both a preferred method of connectivity and a standard overlay requirement where resiliency and dependability are the top priority. However, as satellite connectivity moves to the forefront of available connectivity solutions, satellites have also become

[12] *Id*.

[13] *See, e.g.*, Application of Space Exploration Holdings, LLC For Amendment of Application for the SpaceX Gen2 NGSO Satellite System, ICFS File No. SAT-AMD-20241017-00228 (filed Oct. 17, 2024); NSLComm Ltd., Petition for US Market Access for a Non-Geostationary Orbit Small Satellite System in the Fixed Satellite Service, ICFS No. SAT-PDR-20240816-00186 (filed Aug. 16, 2024); Intelsat License LLC, as debtor in possession, Petition for Declaratory Ruling Granting Access to the U.S. Market for a Non-U.S.-Licensed Non-Geostationary Orbit Satellite System, ICFS File No. SAT-PDR-20211104-00146(filed Nov. 4 2021).

increasingly susceptible to actual and threatened disruption and jamming, particularly by nefarious actors.[14]

Spectrum monitoring can detect and locate sources of interference, but the introduction of advanced capabilities such as dynamic channelization, beam switching, software-defined radios, and other technologies can enable satellite operators to remediate interference *in real time*. Such operational flexibility requires operators have access to diverse spectrum bands to switch between. It also necessitates the availability of diverse networks to discourage bad actors from pursuing means of electronic warfare and jamming, and ensuring continuity of service in all situations.

As a result, the Public Notice provides the Commission the opportunity to make more secure and resilient space-based connectivity available to American consumers, enterprise, and government users. The Commission can eliminate rules and procedures that delay the processing and authorization of much needed satellite capacity and diversity that help make space-based assets more secure. A holistic review of the NGSO licensing regime could remove unnecessary delays and prohibitive barriers to entry for next-generation satellite systems, and would also be consistent with Commission precedent, where advances in sharing capabilities facilitated the adoption of more efficient and streamlined licensing regimes.[15]

The time is ripe for such holistic review of the antiquated NGSO processing round procedures. In recent waiver grants, the Commission itself has recognized that modern NGSO

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[14] *See*, *e.g.*, Tereza Pultarova, "*Satellite jamming is a real and growing threat. How can we protect our space infrastructure?*" SPACE.COM (Apr. 7, 2025), https://www.space.com/space-exploration/satellites/satellite-jamming-is-a-real-and-growing-threat-how-can-we-protect-our-space-infrastructure; Rajesh Uppal, "The emergence of satellite jammers: a new chapter in space warfare," INTERNATIONAL DEFENSE, SECURITY & TECHNOLOGY (Aug. 10, 2024), https://idstch.com/geopolitics/the-emergence-of-satellite-jammers-a-new-chapter-in-space-warfare/.

[15] *See, e.g.*, Space Station Licensing R&O; 2017 NGSO FSS Order; 2023 NGSO FSS Order.

FSS and MSS systems are able to enter the market after a processing round and still share spectrum without harming the systems that came before or preventing entry to those that may come after.[16] Therefore, Logos encourages the Commission to expeditiously adopt a proceeding to review, revise, and streamline the procedures for authorizing NGSO systems in the United States. Such proceeding will greatly advance the security, resiliency, and efficiency of space-based connectivity solutions depended on by American consumers and enterprise.

Respectfully Submitted,

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[16] *See*, *e.g.*, *Space Exploration Holdings, LLC Request for Deployment Operating Authority for the SpaceX Gen2 NGSO Satellite System*, Order and Authorization, DA 24-1160, ¶ 12 (Space Bureau, 2024) (finding that "SpaceX's operations are fully coordinated with prior processing round participants. . . .We therefore find it would not contravene Commission policy to waive the processing round procedures that are generally applicable to MSS systems and were designed to accommodate multiple NGSO systems that are not able to share spectrum.").